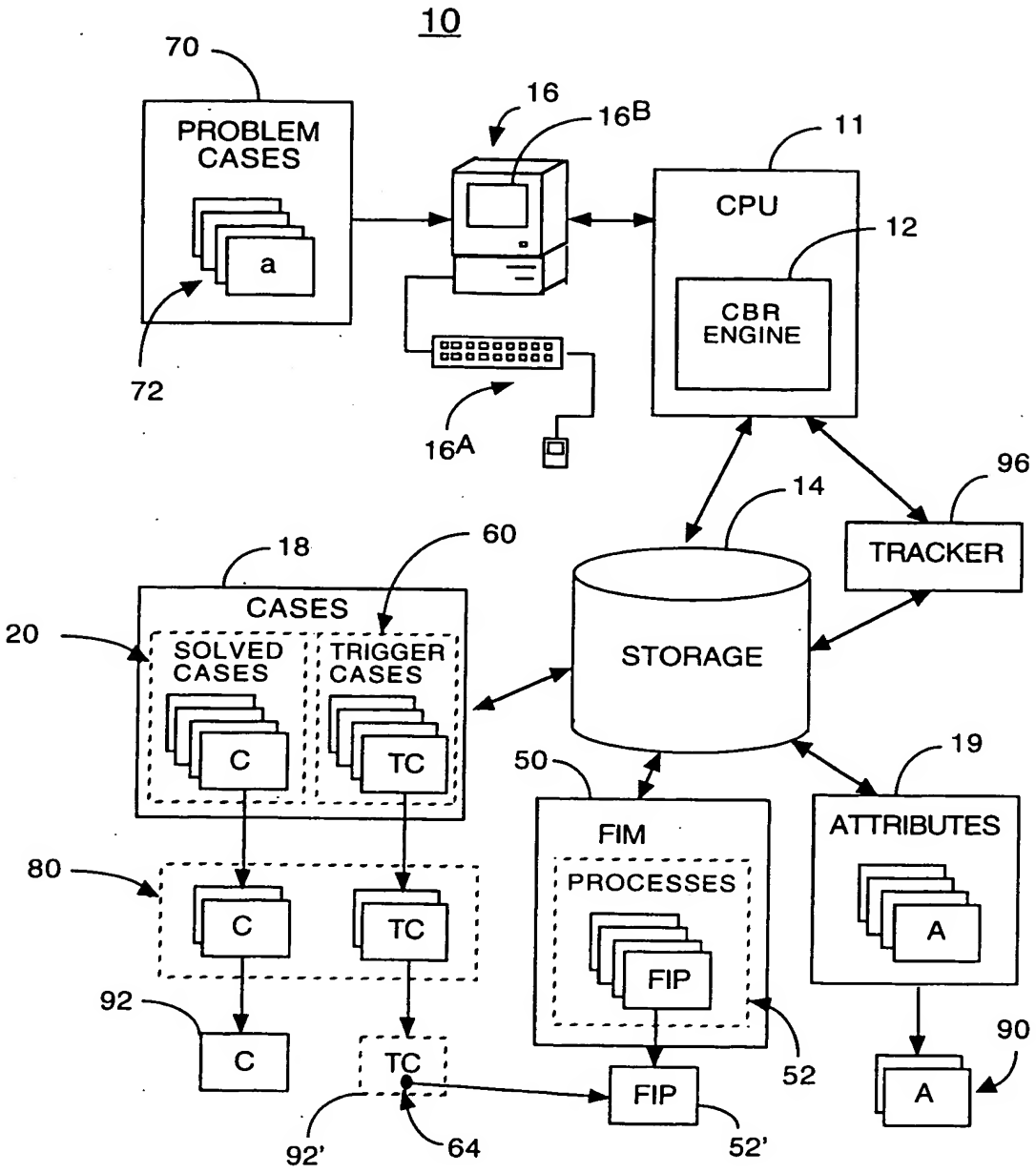

10
70
PROBLEM CASES
a
72
16
16B
16A
11
CPU
12
CBR ENGINE
96
TRACKER
14
STORAGE
18
60
CASES
20
SOLVED CASES
TRIGGER CASES
C
TC
80
C
TC
92
C
TC
92'
64
50
FIM
PROCESSES
FIP
52
FIP
52'
19
ATTRIBUTES
A
90
A

Fig. 1

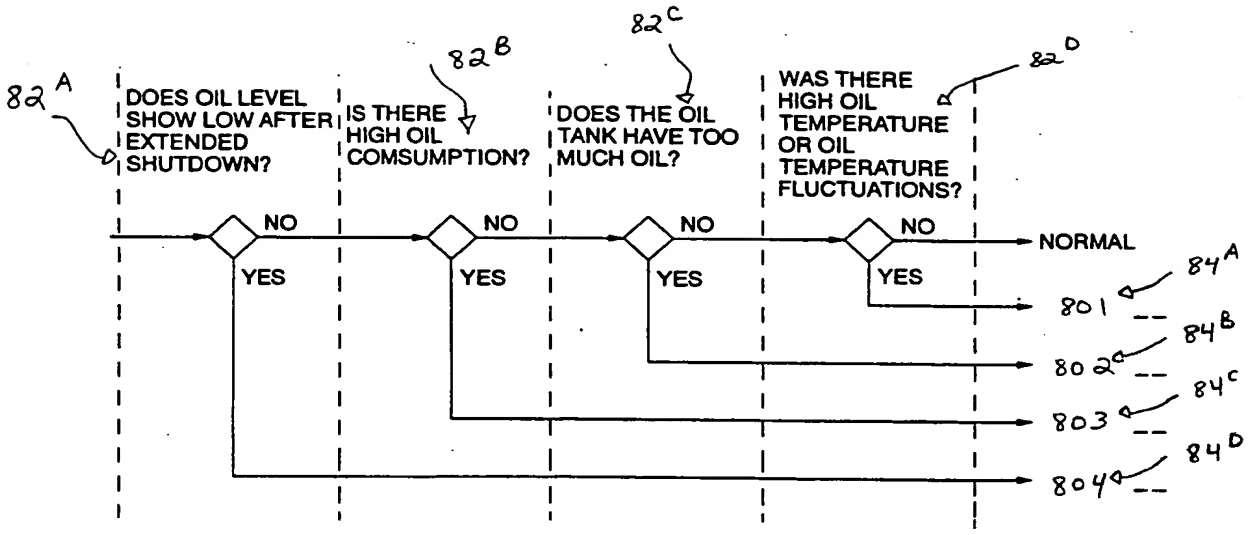

82A
DOES OIL LEVEL SHOW LOW AFTER EXTENDED SHUTDOWN?
82B
IS THERE HIGH OIL COMSUMPTION?
82C
DOES THE OIL TANK HAVE TOO MUCH OIL?
82D
WAS THERE HIGH OIL TEMPERATURE OR OIL TEMPERATURE FLUCTUATIONS?
NO
YES
NORMAL
84A
801
84B
802
84C
803
84D
804

Fig. 2A

97

LUBRICATION SYSTEM – FAULT CODE INDEX

86

FAULT CODE	1. LOG BOOK ENTRY 2. FAULT ISOLATION REFERENCE
701	1. Oil does not flow from Replenishing Tank to Engine Tank when Selector Valve is set to LH(RH). 2. Page 101 Block 1.
702	1. PRESS TO TEST Switch does not operate. 2. Page 103 Block 1.
703	1. When oil is added to Engine Oil Tanks, Oil FULL indication does not operate. 2. Figure 102 Block 1.
801	1. High Engine oil temperature or oil temperature fluctuations were shown. 2. Figure 101 Block 1.
802	1. The Engine Oil Tank has too much oil. 2. Figure 101 Block 1.
803	1. There was high Engine oil consumption. 2. Figure 101 Block 1.
804	1. Engine oil level shows low after extended shutdown. 2. Figure 101 Block 1.

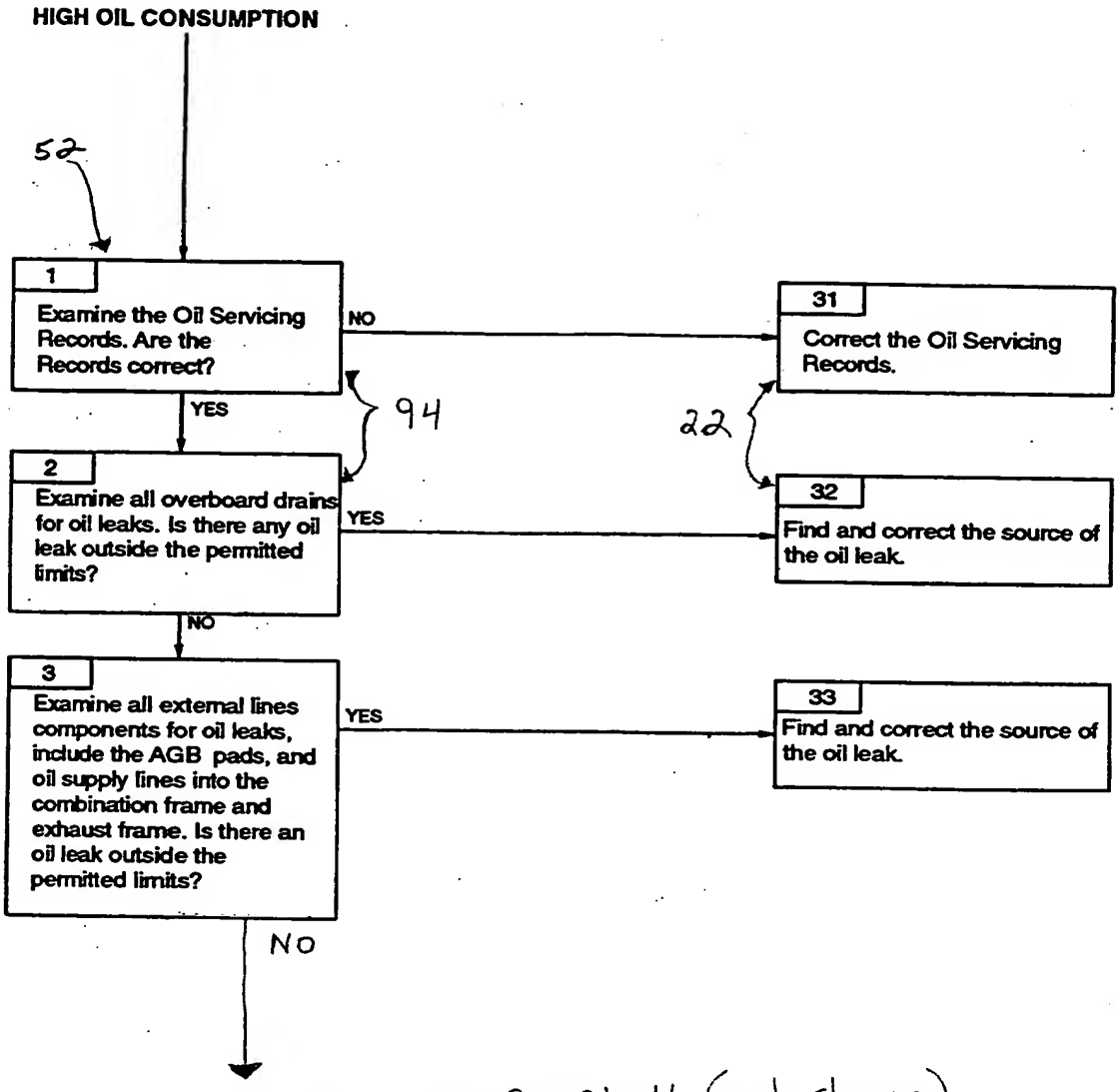
84

84c

88

Fig. 2B

PAGE 101



To Page 102 BLOCK 4 (not shown)

Fig. 2C

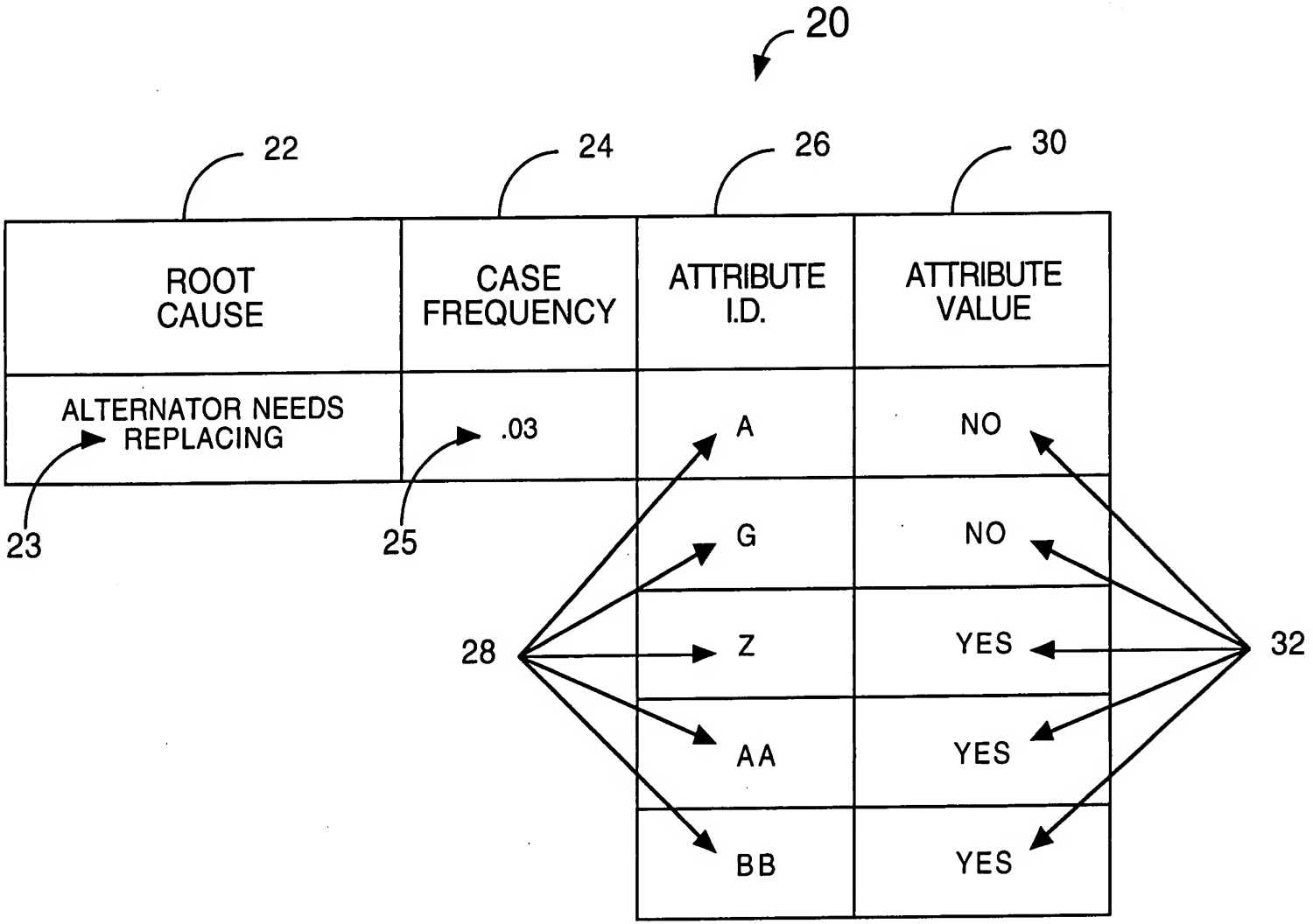

20
22
24
26
30
ROOT CAUSE
CASE FREQUENCY
ATTRIBUTE I.D.
ATTRIBUTE VALUE
ALTERNATOR NEEDS REPLACING
.03
A
NO
G
NO
Z
YES
AA
YES
BB
YES
23
25
28
32

Fig. 3A

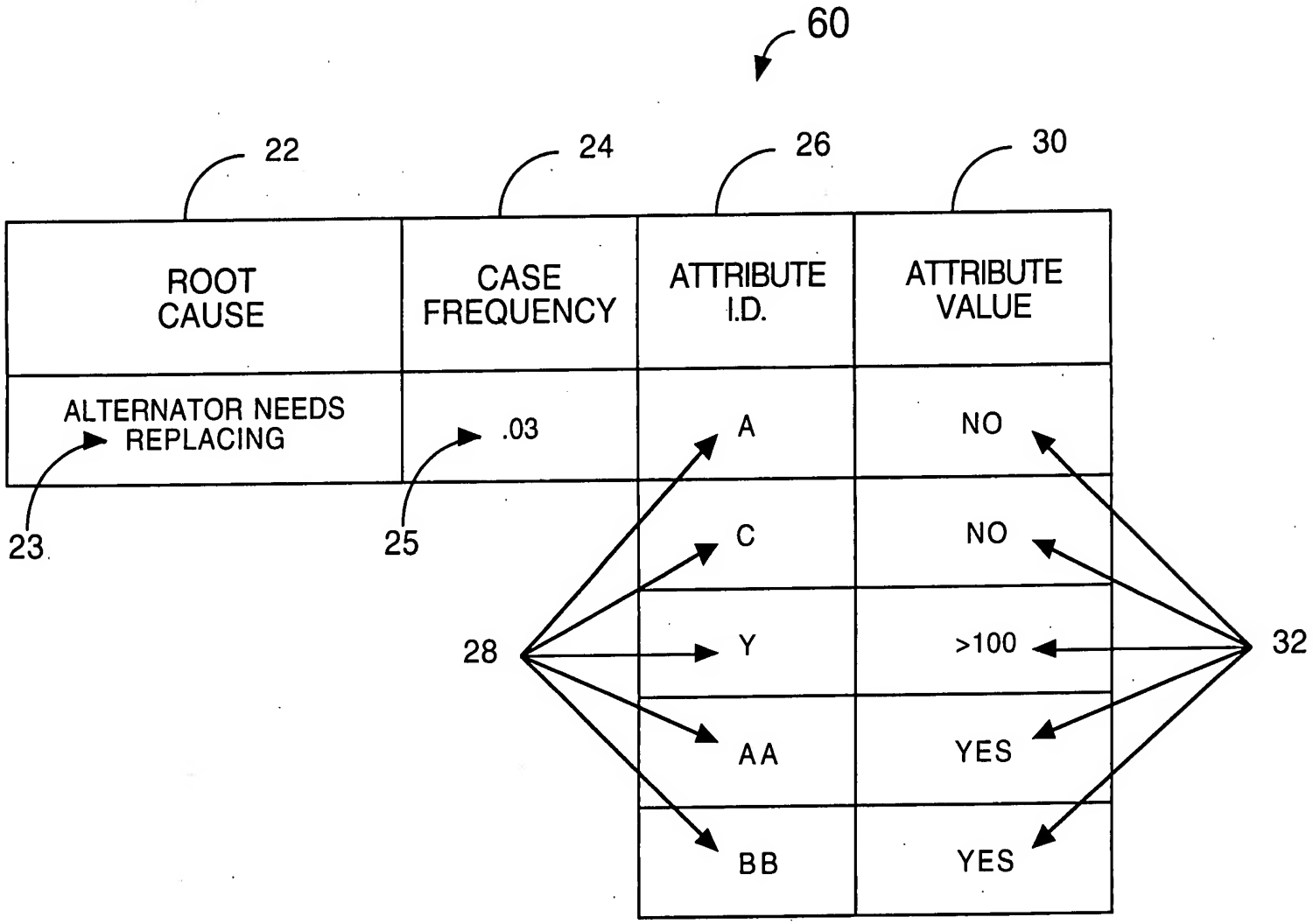

60
22
24
26
30
ROOT CAUSE
CASE FREQUENCY
ATTRIBUTE I.D.
ATTRIBUTE VALUE
ALTERNATOR NEEDS REPLACING
.03
A
NO
C
NO
Y
>100
AA
YES
BB
YES
23
25
28
32

Fig. 3B

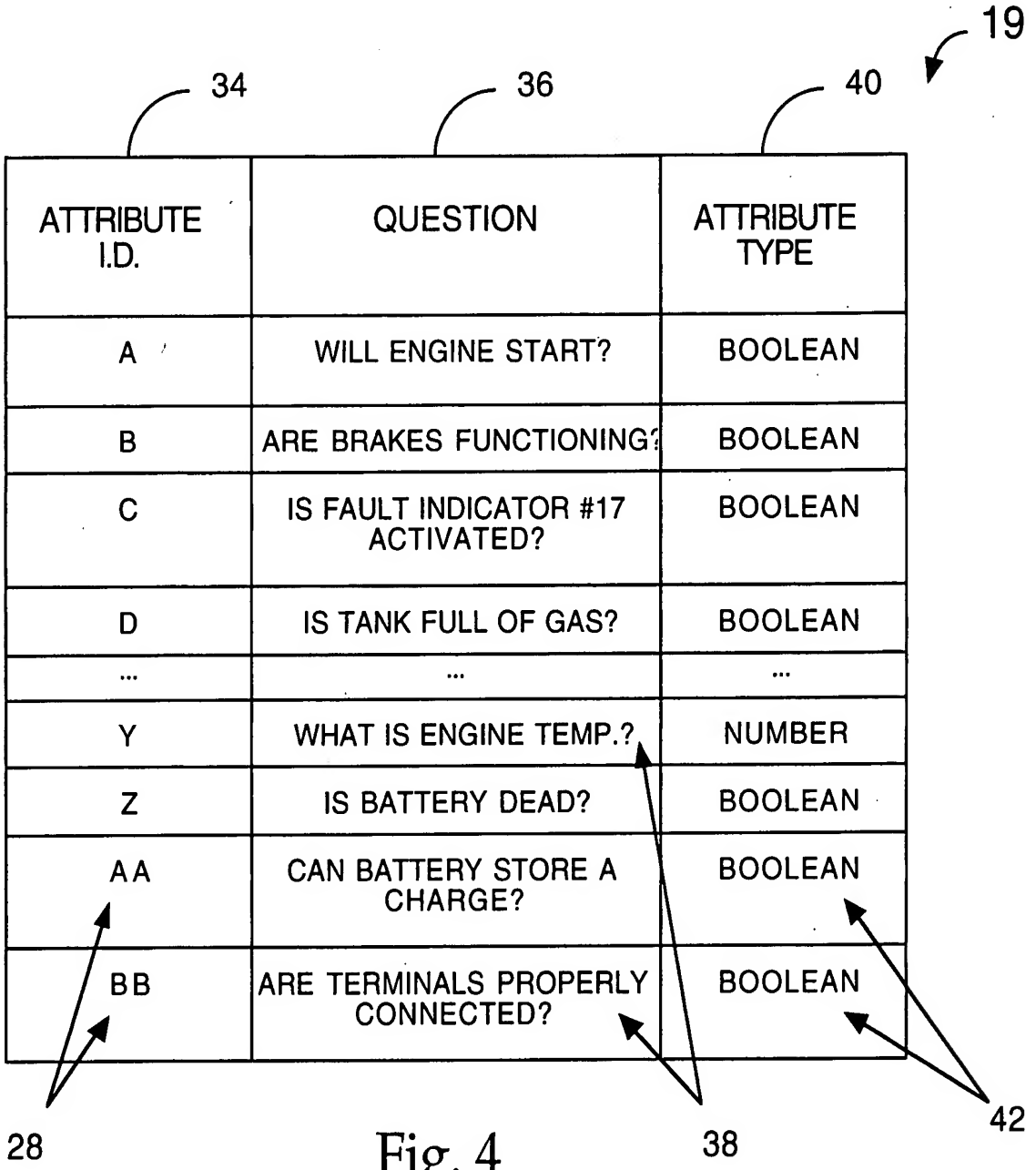

19
34
36
40
ATTRIBUTE I.D.
QUESTION
ATTRIBUTE TYPE
A
WILL ENGINE START?
BOOLEAN
B
ARE BRAKES FUNCTIONING?
BOOLEAN
C
IS FAULT INDICATOR #17 ACTIVATED?
BOOLEAN
D
IS TANK FULL OF GAS?
BOOLEAN
...
...
...
Y
WHAT IS ENGINE TEMP.?
NUMBER
Z
IS BATTERY DEAD?
BOOLEAN
AA
CAN BATTERY STORE A CHARGE?
BOOLEAN
BB
ARE TERMINALS PROPERLY CONNECTED?
BOOLEAN
28
38
42

Fig. 4

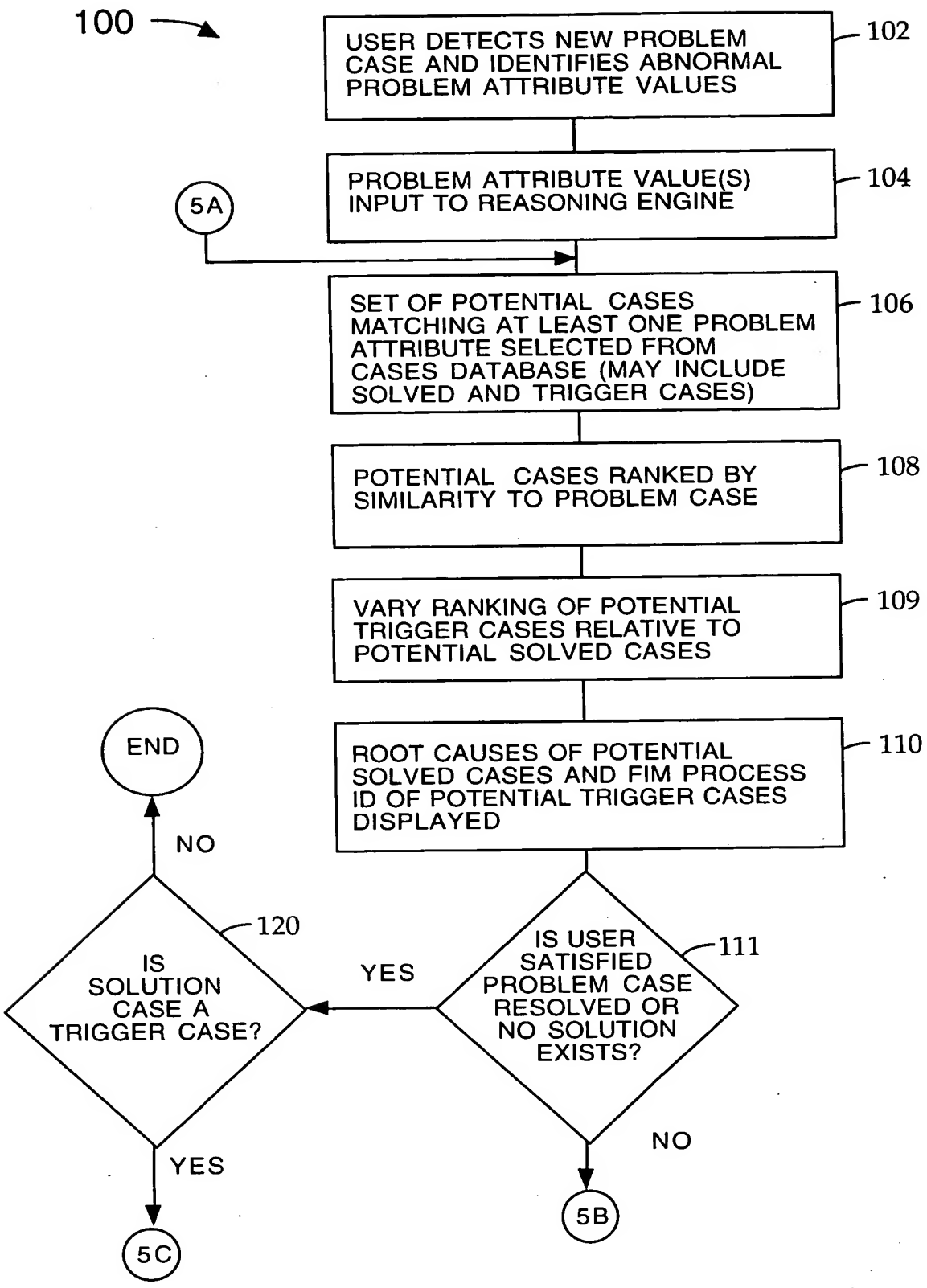

100
USER DETECTS NEW PROBLEM CASE AND IDENTIFIES ABNORMAL PROBLEM ATTRIBUTE VALUES
102
PROBLEM ATTRIBUTE VALUE(S) INPUT TO REASONING ENGINE
104
5A
SET OF POTENTIAL CASES MATCHING AT LEAST ONE PROBLEM ATTRIBUTE SELECTED FROM CASES DATABASE (MAY INCLUDE SOLVED AND TRIGGER CASES)
106
POTENTIAL CASES RANKED BY SIMILARITY TO PROBLEM CASE
108
VARY RANKING OF POTENTIAL TRIGGER CASES RELATIVE TO POTENTIAL SOLVED CASES
109
ROOT CAUSES OF POTENTIAL SOLVED CASES AND FIM PROCESS ID OF POTENTIAL TRIGGER CASES DISPLAYED
110
IS USER SATISFIED PROBLEM CASE RESOLVED OR NO SOLUTION EXISTS?
111
YES
NO
5B
IS SOLUTION CASE A TRIGGER CASE?
120
NO
YES
END
5C

Fig. 5A

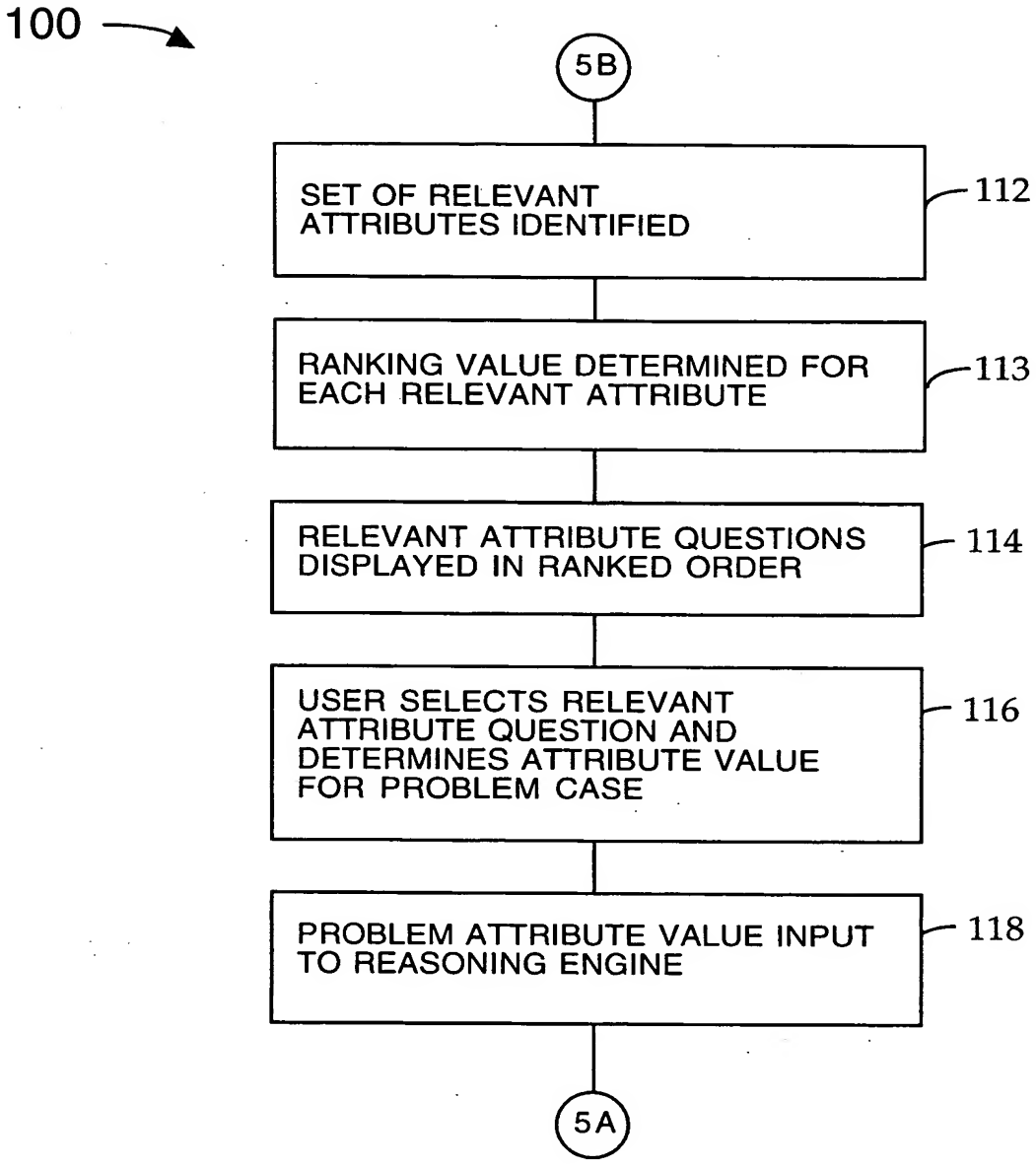

100
5B
SET OF RELEVANT ATTRIBUTES IDENTIFIED
112
RANKING VALUE DETERMINED FOR EACH RELEVANT ATTRIBUTE
113
RELEVANT ATTRIBUTE QUESTIONS DISPLAYED IN RANKED ORDER
114
USER SELECTS RELEVANT ATTRIBUTE QUESTION AND DETERMINES ATTRIBUTE VALUE FOR PROBLEM CASE
116
PROBLEM ATTRIBUTE VALUE INPUT TO REASONING ENGINE
118
5A

Fig. 5B

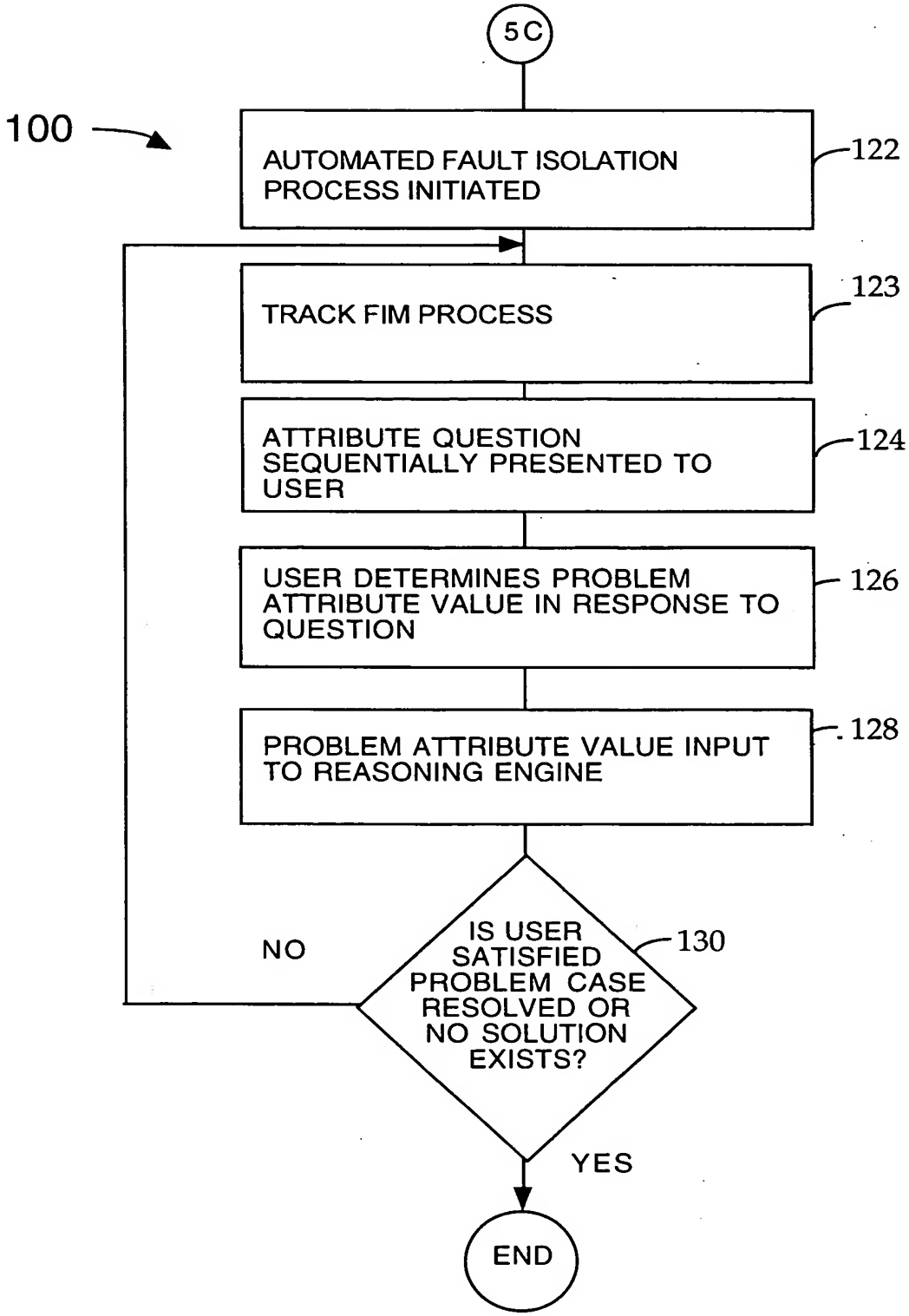

5C
100
AUTOMATED FAULT ISOLATION PROCESS INITIATED
122
TRACK FIM PROCESS
123
ATTRIBUTE QUESTION SEQUENTIALLY PRESENTED TO USER
124
USER DETERMINES PROBLEM ATTRIBUTE VALUE IN RESPONSE TO QUESTION
126
PROBLEM ATTRIBUTE VALUE INPUT TO REASONING ENGINE
128
IS USER SATISFIED PROBLEM CASE RESOLVED OR NO SOLUTION EXISTS?
130
NO
YES
END

Fig. 5C